

# How To Sharpen Your Slotting Blade

This short article will be followed by a short demonstration at the February meeting.

Most blades for cutting wood have several things in common. They all have teeth with set in them (some planer blades excepted) and the teeth are ground at an angle and have a set which produces a cut or kerf wider than the blade is thick.

Slotting or slitting blade or jewelers blades are primarily made for cutting metals. Most have very fine teeth. They are made of high speed steel alloy and heat treated. The teeth are cut square across and have no set. These blades will cut a kerf that is the same width as the blade thickness. Cutting depth is usually very shallow so as to keep heat buildup to a minimum.

To use these blades for cutting wood I have found it necessary to sharpen them in a manner similar to that of wood cutting blades. The technique described here is crude but it works for me. The accuracy is at best a guess. It takes some practice to become proficient at this, but it is not too difficult to master.

Tools required: A Dremel motor with speed control, a mandrel and some abrasive cut off wheels (7/8" dia x 0.020 thick), a magnifying eyepiece.

On the side of the blade, mark the teeth as shown in Figure 1 with a marker that will not rub off during handling. Use a larger mark at one tooth as shown as this will be your starting point. The others are so you will not lose your place during the grinding step. Now turn the blade over and do the other side only this time the marks go on the teeth that you did NOT mark on the opposite side.

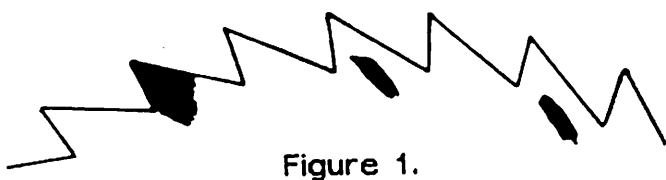


Figure 1.

Now get yourself in a comfortable position with both elbows resting on a table or bench top and holding the Dremel in a vertical position with the abrasive

wheel at eye level, you are now ready to begin sharpening.

Holding the Dremel in your left hand and the saw blade in the right hand, tilt the top of the saw blade slightly backwards (about 5-10 degrees), proceed to grind the top of every other marked tooth until the flat is removed. Proceed slowly to prevent overheating the blade which will destroy the heat treatment. The color of the blade should NOT change color, if it does you are grinding too aggressively, back off and go more slowly. Don't be in too much of a hurry. At this point your blade should appear as in Figure 2.

Now comes the hard part, switch hands with the Dremel and the blade and repeat the last step. You should now have a blade that looks like Figure 2 when viewed from either side.

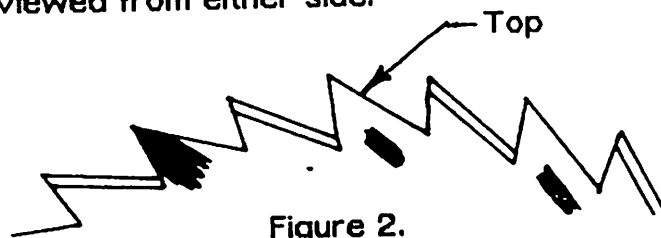


Figure 2.

Now proceed to grind the faces of the teeth in the same manner as you did the tops of the teeth. After grinding the faces of the teeth your blade should now appear as Figure 3 when viewed from either side.

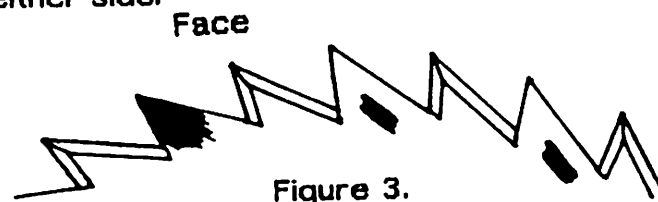


Figure 3.

Now install the sharpened blade on your saw and make a small cut into a scrap of wood. Examine the cut, it should appear as in Figure 4. This will indicate that the tips of the blade are scoring the wood and cutting the fibers cleanly. Did you feel the difference while you were cutting?



Figure 4.