

This is a new version of the [original jig](#) I made a few years ago and is an improvement in two distinct areas. First, it orients the stone lengthwise, which is more traditional and perhaps more comfortable for most users. Second, it's a bit easier to build and setup. Not by much, but every bit helps when it comes to maintenance tasks like sharpening.

As with the previous version, the chisel or plane iron is indexed against the underside of the jig, allowing you to set the sharpening angle precisely for any chisel, regardless of the blade shape.

Please note that I made a small change to the plans after I made the jig shown here. I reduced the length of part A, mainly to make it so that shorter chisels will fit on the tool holder.

The first step is to cut out all of the parts as detailed in the plans.

I used Baltic birch plywood, but that's not strictly necessary. Any good quality plywood that is a uniform thickness is fine.

The base for mine is made from 5/8" melamine that I banded with strips of 1/4" pine to cover the edge:



The strips that hold the stone in place and act as stops for the jig were added next:



The stone I'm using is 8" long and 2" wide. It's seen better days – I recently glued it back together after it broke in half from a fall on the floor. It still works, though, and that's what matters. The strips are placed to centre the stone on the base:



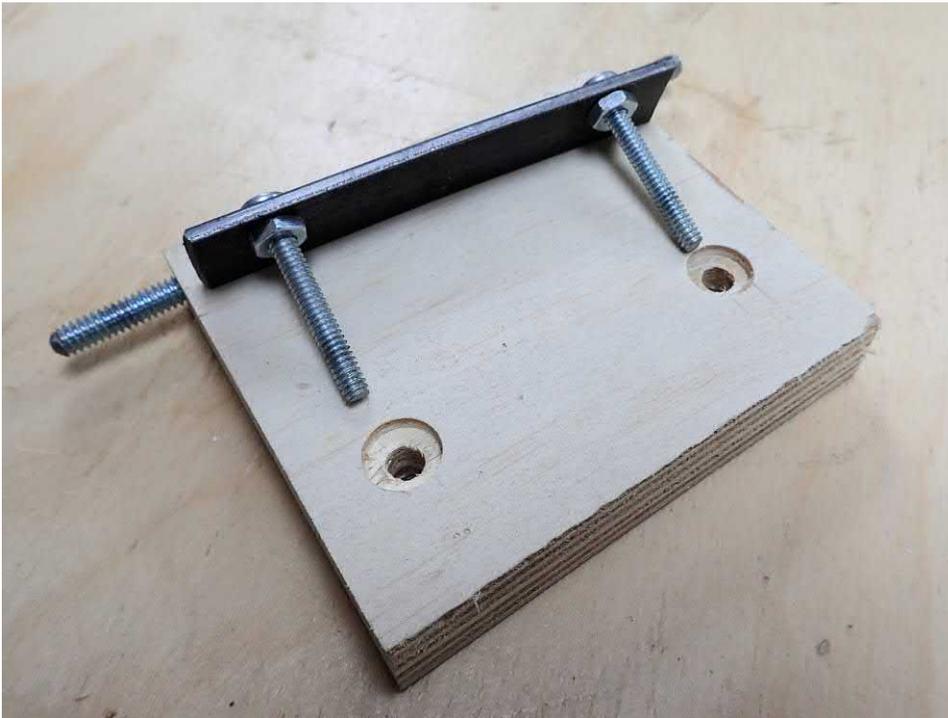
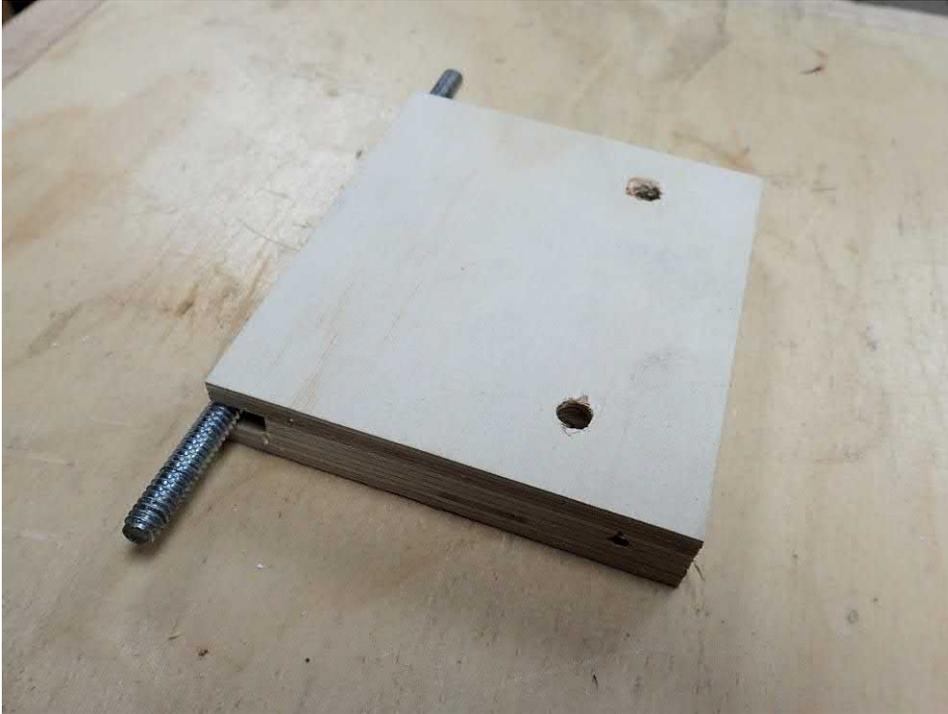
Stones shorter than 8" can be used, but the back stop strip should be move forward to keep the chisel / plane from slipping off the stone.

Here's all of the hardware needed to complete the jig. I used a piece of mild steel for the locking bar that is 1/8" thick. Using stock that's any thicker may stick down too far and hit the stone.



Part A has a slot cut to receive the threaded rod. This can be done easily on the table saw in a couple of passes.

To hold the machine screws in the clamping bar, you can either use epoxy, or nuts as I've done here. If using the nuts, you'll need to drill counterbores in the bottom of part A to accommodate them:



Parts B1 and B2 marked out on a piece of plywood, ready to cut:



To cut the long angle, I used double sided tape to attach it to a straight board. I lined the edge up with the line drawn on the plywood, then cut it on the table saw:



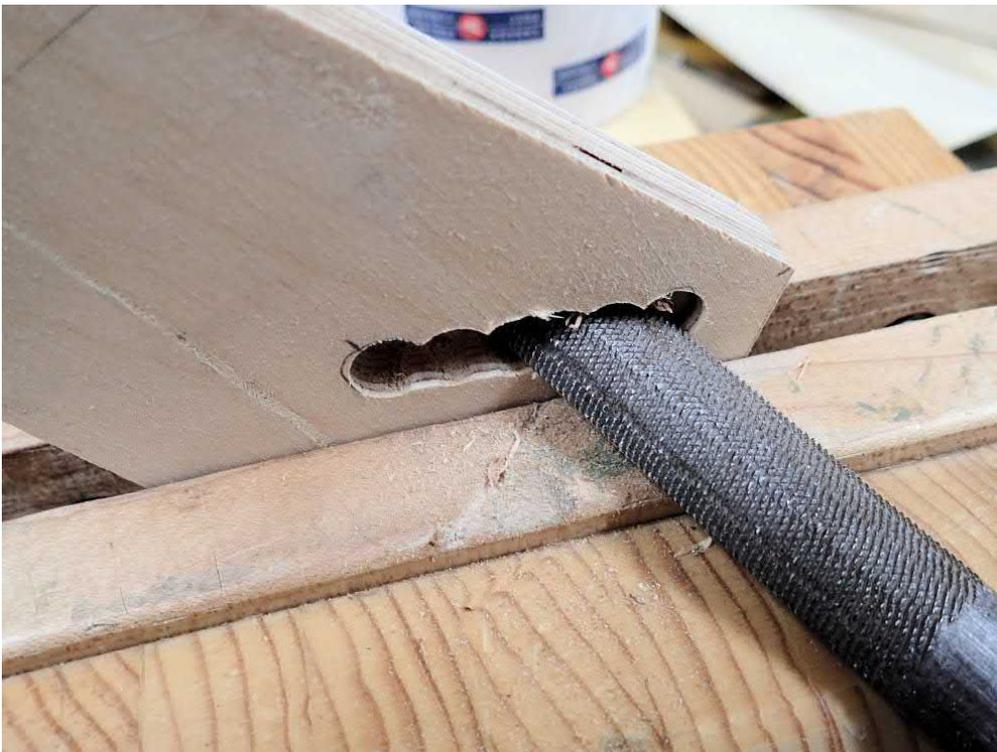


I cut the other angle at the miter saw, setting the saw to 22 degrees past 90:



These angle cuts need not be overly precise, since they are at the top of the jig and don't have any bearing on the accuracy.

To cut the slots I drilled a series of 3/8" holes, then cleaned it up with a coarse file:



The top corners are rounded on the [disk sander](#) to make the jig more comfortable use. The pivot holes for part A are drilled and these are complete. Again note that these parts are slightly different in the plans:



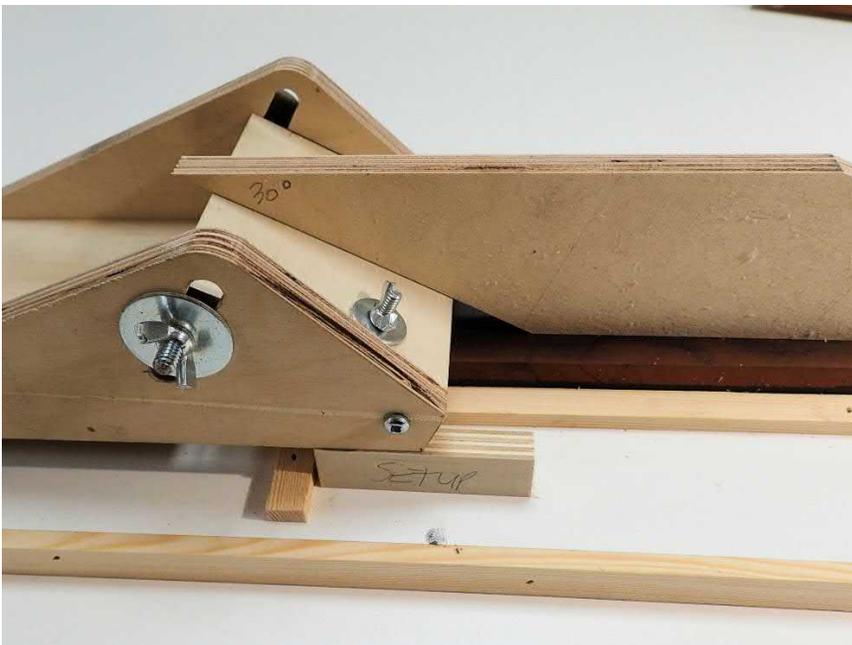
Not a lot to parts C and D – just straight cuts. I used slippery plastic for part D, mainly because I have some. Any type of wood will work fine too, especially if you oil it.



With the jig assembled, it's time to set it to the correct angle for sharpening. I used my sliding t-bevel and protractor to mark a piece of plywood with a 25 and 30 degree angle. I mainly did that to make it easier to show in the video, but you can use the t-bevel directly on the stone and set to 155 degrees (for 25) and 150 degrees (for 30).

I cut pieces to prop up the front of the jig (marked "setup" in the photo) that are the same height as part D.

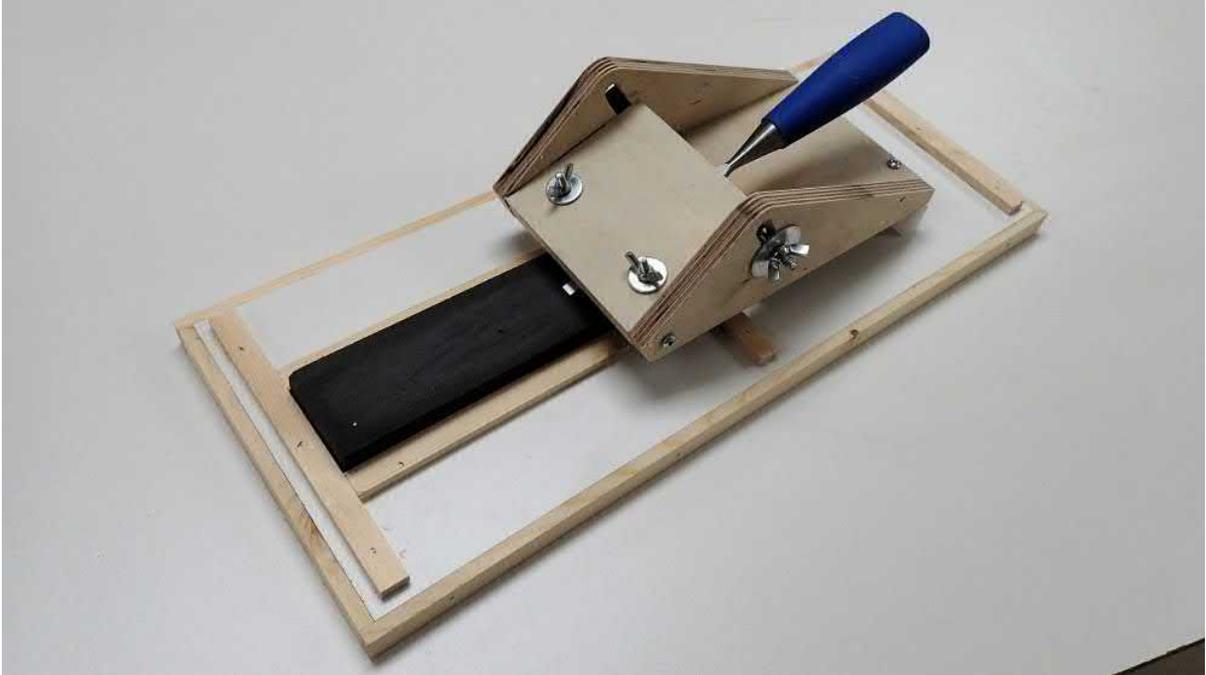
I then used the angled plywood guide to set the angle on the tool holder:



I sharpen the primary angle on my chisels and block plane blades to 25 degrees, then the secondary angle at ~27 degrees for chisels and 30 degrees for plane blades. I'm not sure that the extra 3 degrees for plane blades makes much of a difference, but a steeper angle will result in a tougher edge less prone to chipping. Of course, a steeper angle also means it will be less sharp, but I really haven't noticed a problem:



The stone I'm using has a coarse grit on one side (90 grit) and I use that to grind the primary angle. The other side is fine (600 grit) and I hone the secondary angle with it. Normally, that's as far as I'll go, since I've found that sufficient for most cutting operations.



The stone is Norton Item# ICS8. This is a fairly low priced, but very good quality stone and is readily available. It's an oil stone, but I'm using water (with a little dish soap added) instead. I find that works just as well and is a lot less messy than oil.

There are also similar versions that are 1" thick (mine is 3/4" thick) and to use this thickness, the height of part D needs to be adjusted. Whatever thickness stone you do use, the bottom of the tool cradle should be 1/8" above the top of the stone.

It can be used with diamond stones too – the thin plate type can be made thicker with plywood, double sided taped to the plate.