

## Simple Knife made with Simple Tools Build Along

I was starting this knife and thought I would take some pics as I went along. Then I thought I would make a simpler knife that could be made with basic tools and a piece of wood; and i'm gonna show you how I did it!

This is by no means the only way it can be done it's just the way I do it. Feel free to ask me questions and PLEASE comment if you have or know a better way to do something. Stop learning=start dieing so I'm always ready to learn!



Piece of steel!!

I cut it from a sawmill blade with a cut off saw and grinder motor that I got at Lowes (\$6)



I ground the end of the blade to shape with a grinder and stone wheel; kind of a mini nessmuck shape. Then I took a regular magic marker and marked out where I wanted the finger grips to be. Then I ground the shape into the steel with the same wheel.





Then I taped off where I wanted the edge to be. This helps in two ways; it helps you keep up with where you're ground and it keeps you from scratching the other part of the blade if you don't want to. I eyeballed the width of the edge, I just know where I want it to stop, yours could be different.





Ok, time for file work. You need to try and get all of your main work done before you temper so that you're not whittling on it too much afterward.

I use a Dremmel when I do the BIG grooves for the vine file. If it's a small vine like on a neck knife I use a round (chain saw) file.

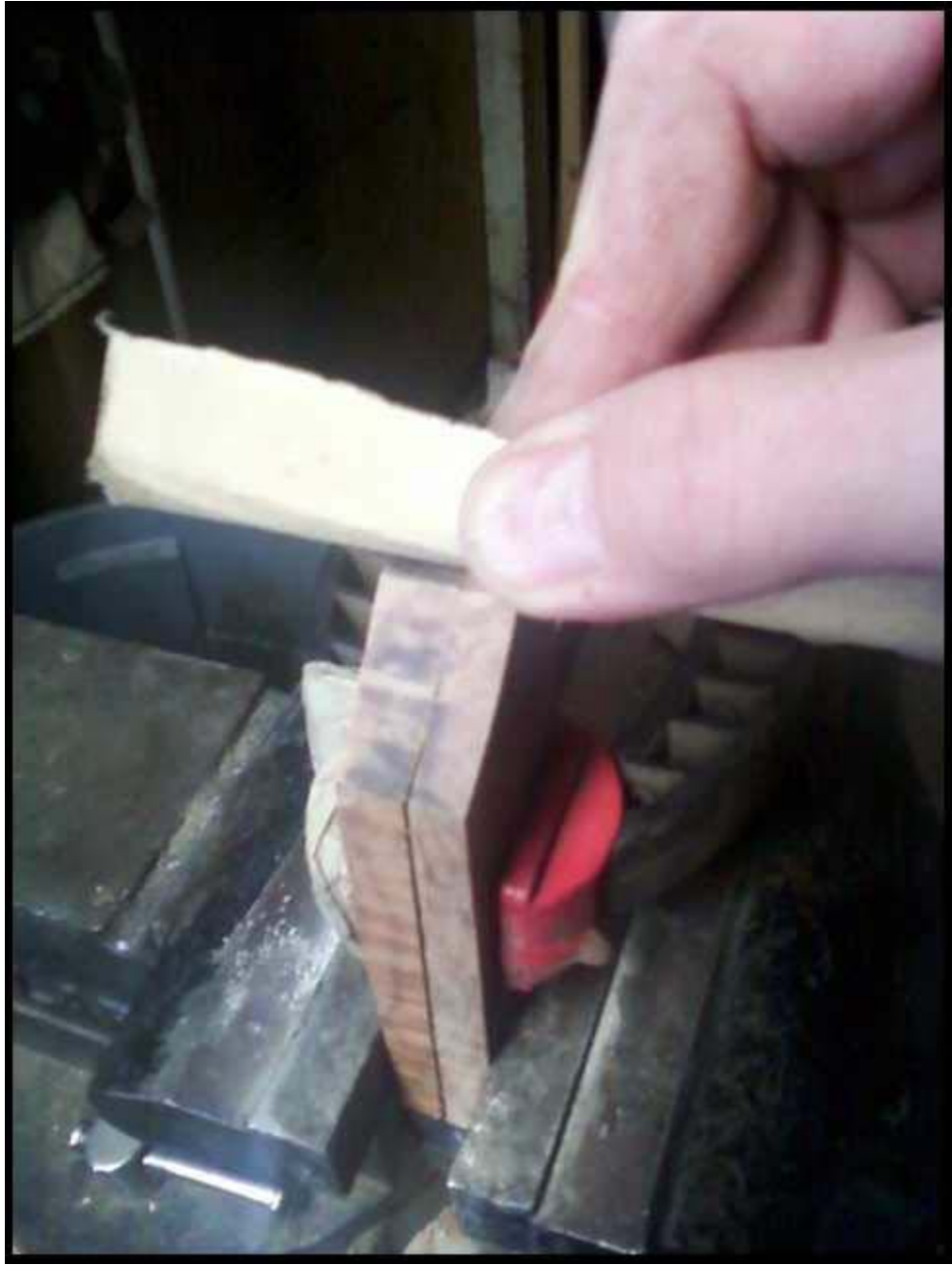
One of the tricks to making the vine file pretty is to make the grooves at an angle to the top of the blade rather than perpendicular to it. The spacing of the grooves will determine how tight or loose the vine is. Too far apart and you won't be able to make the part between the grooves look like a vine.



I decided to make a design in the front part of the wood handle where it meets the blade. You have to finish this completely before you install the handle because it's impossible to get to after it's on. I cut out the design using the same sander as before. I clamped the two sides of the handle together and sanded them together so they would be perfect matches.







They're different thicknesses but that's ok, as long as the sides that are touching the knife are super flat.

Above i'm using a magic marker wrapped with sandpaper to get the two to match and be smooth.

Now, line your first scale up with the side of you your knife and either put it in a vise or clamp it against the side. Then, use the holes you drilled in the knife as a template to drill the pin holes in the scale. Be careful to go slow so you don't punch the wood out the other side.



Now, clamp the two scales together to where the front edges match perfectly and CAREFULLY use the first scale as a template to drill the holes in the second. This way they're sure to match.





I FORGOT!! You need to use a drill bit that's just a tad smaller than the pins when you drill the scales so they're fit nice and snug.



Ok, between the last step and this one I went outside and heated the blade to cherry red, quenched it in light oil (twice), then took it inside and put it in a 400deg oven until the color looked right (you gotta study up on this part yourself, there's a hundred ways to do it).

Then I brought it back outside, tapped the pins through one scale until they just barely protruded, I cleaned my knife blade with alcohol, mixed up my epoxy and lathered it on being sure not to get any in my file work. Put the scale on one side, tapped the pins through until they protruded out the other side of the handle, then slid the other scale on the protruding pins and lightly tapped the pins through. I then clamped it all up so the handle would meet flush with the steel and let her dry!



After it dried I unclamped it, made sure it all glued up nice and once again used a 150 grit belt on my 1" sander to rough shape the handle.

BADGERARROW: I used the 1" sander on the edge.







When you're sanding the handles move around a lot, switch from one side or area to the other a lot to keep any one area from overheating. If you overheat a pin it will burn the hole and have a dark ring around it all the way through! You can see the dark areas above where the Cherry burned.



You can rough shape the handle with a rasp but you have to avoid the pins or it will ruin the rasp and handle. A file works too, but heavy sandpaper and a sanding block work best if you don't have a power sander of some sort.



To make the finger comfort grooves on this one I first used a small round edged file, then a magic marker wrapped in smaller and smaller grits of sandpaper.



Not a very good pic but you can see them forming.

Now is when the tough work starts. You have to hand sand some woods (like Cherry) because the sander just overheats it too much. So, I hand sanded the sides, the finger grooves and the steel that shows between the scales. I finished with 800grit if that tells you anything about how long this took.

Then I burnished the wood with a deer antler.



I lathered on some linseed oil and sat it in front of a heater until it soaked in and then reapplied. Wiped off the excess and looked for flaws; this is when they show up.



I did a hand sanded finish on the blade so I clamped it back into the vise using leather to cushion the handle and started with 400 grit and worked my way to 800 grit. The trick to a pretty hand sand is to finish it sanding in one direction only; never back and forth. Move your sandpaper toward the handle, pinch the edge and pull toward yourself like you're trying to wipe oil off the edge with your fingers. It takes time but it's pretty when you're done.









Left out a step on the file work. Once you get the grooves ground go back with the edge of a bastard file or a triangle file and file marks in toward the opposite side of the knife (see drawing). Once this is done lightly file the edges of the bigger grooves you made earlier so that they have a rounded look and thus form the "vine look". Is that as clear as mud?





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