Old Business Machine Stand
New Top!

No telling how old this little stand is? A friend of mine has been collecting antique business machines for years, and repurposing some of them.

He tasked me with making a new top for this stand, and he plans to use it as an end table in his living room.

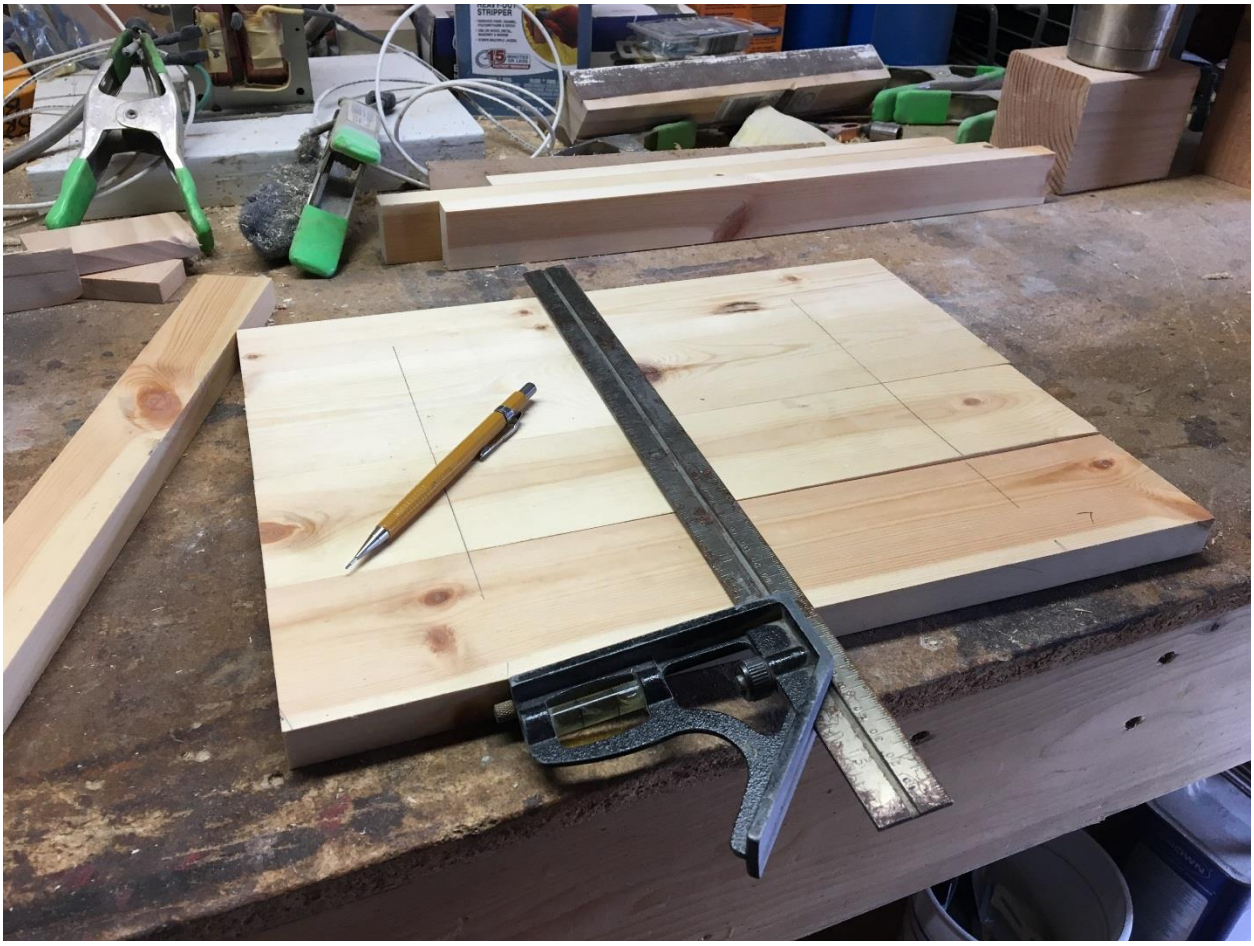
He wanted it to be unique, so I used a Litchtenberg device to do fractal wood burning.

This device can be made from a microwave, or neon sign, transformer. However, they are very dangerous to use if you're not careful!

There's a picture of the one that I made from a microwave that I bought at a yard sale, and tore apart to get the transformer, at the end of this presentation.

I started by measuring the dimensions of the original top and used 1”x4” Pine to make the new top.

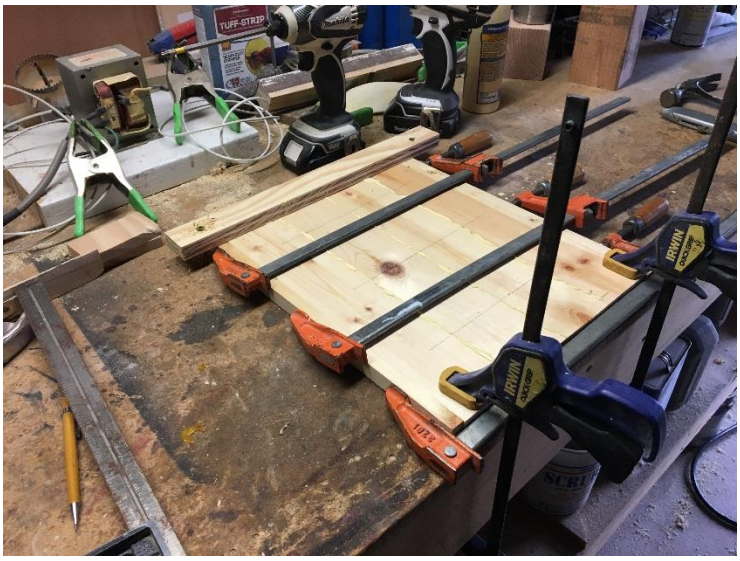
I subtracted 1 ½” from the length and width to accommodate the edge band thickness.



I cut the boards to the desired length and ripped them to achieve the dimensions that I needed. Next, I drew lines using a straight edge to mark where to plow the biscuit joiner.

With the biscuit holes cut I lined up all the boards on top of some clamps. Then I used scrap pieces of wood where the clamps will come into contact, so they wouldn't crush, or disfigure, the "good" wood.

Next I applied a liberal amount of wood glue along the entire edge surfaces, as well as in the biscuit cut-outs. Inserted the biscuits and assembled the pieces.



I clamped everything together and turned the assembly over and clamped it to my work bench to prevent warping.

After the glue dried I unclamped the assembly and smoothed up the outer edges.

I set it on the table frame and cut the banding strips. Glued, and nailed them to the assembly, as shown, and clamped everything up to insure a tight fit.

After the glued cured I unclamped the top and used 80 grit sandpaper, then 100 grit, and finished with 200 grit on an orbital palm sander for the main flat surfaces.

I then used an Ogee bit in a router to route the profile on the top edge of the table top.

I went back over the routed surface with the sandpaper.

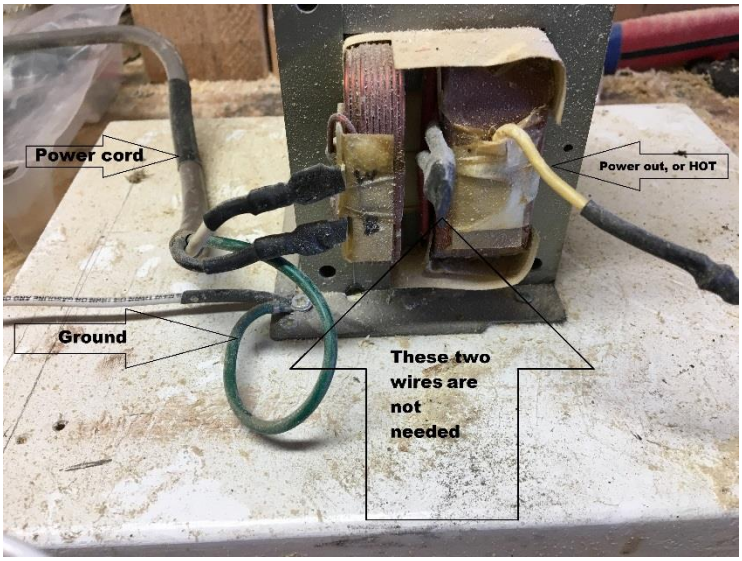
Note: As I was sanding if I saw a crack, or defect in the wood, I would apply a thin film of wood glue into the crack and sand it while the glue was still wet. This forces the sanding particulate (wood dust) into the crack, with the glue, and fills the crack.

Fractal Wood Burning: also known as the Lichtenberg technique of creating lightning, or tree, like figures in wood using high voltage electricity.

You can use the transformer out of a microwave oven, or a neon sign. The one that I made came from a microwave that I picked up at a yard sale for $20.00. There are plenty of tutorials on line on how to make one. However, use extreme caution as this thing will kill you!

I leave this one unplugged until I have the probes in place, and I ***never*** hold, or touch, the probes when the device is plugged in. Once the probes are where I want them I stand back, plug the device into a power strip with a switch, and then I turn on the switch. After the burn I turn off the switch, and then unplug the device. I repeat this process until I have the results that I want.

After the burn was complete I ran water over the surface and scrubbed as much of the carbon off, as I could, with a stiff scrub brush and wiped the piece dry with a towel.



NOTE: This is not a technical plan to make a Litchtenberg fractal wood burning device. Consult an expert/licensed electrician before attempting to make a device like this. These devices can, and have, caused death. They are very dangerous!

Please do your homework if you decide to attempt using one of these.

My Device:

I do not hold the probes at all while the device is plugged in. I used 1/8' steel round stock for the probes. I cut small wood blocks and drilled 1/8" holes through them and pushed the probes into the blocks. These spring clamps are strong, cheap, and hold the probes where I want them.

I mounted this transformer to a scrap block of wood (2"x10").

The power cord is the same one that was on the microwave that I got the transformer from.

There are three wires coming out from the coil. The two in the center are not used, so I used electrical tape on each one and used heat shrink over both.

The white wire is the power out, of HOT.

One probe is connected to the Ground, and the other to the HOT.