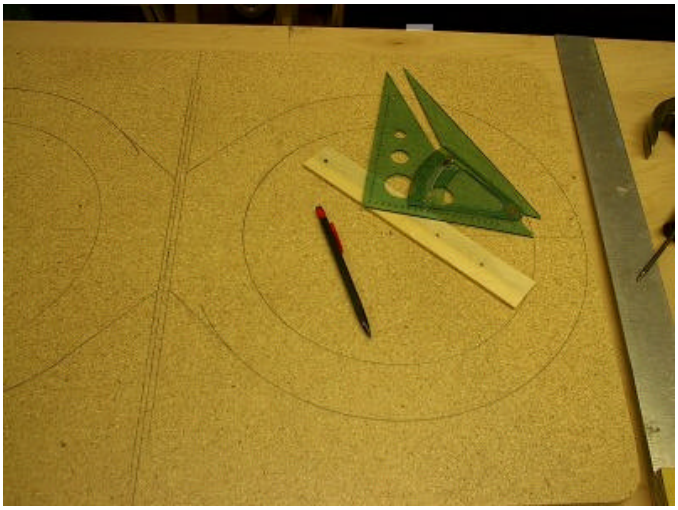
Lathe Steady Rest

By Ray Lanham



I got covetous seeing Dominic Greco's Steady Rest on WoW this week so I just had to make my own. Kitchen Sink cut-outs are cheap ($2-$3) in my area. Laminated w/formica, they make a wonderful material for this project. (Go to your local cabinet shop or Home-Depot and ask them who makes their formica tops)

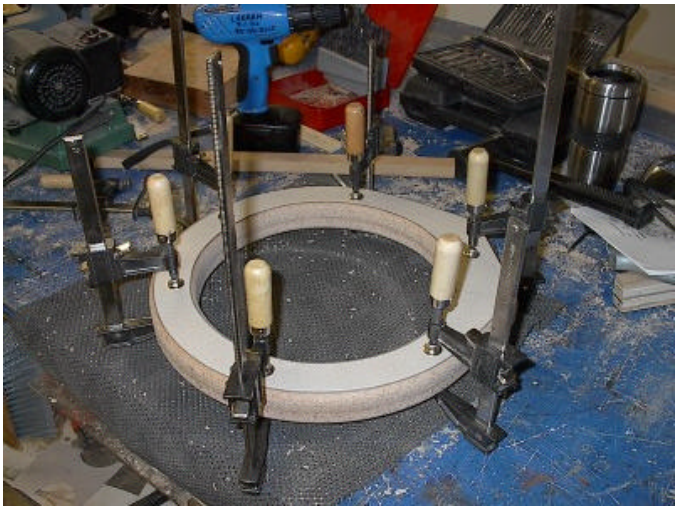
I laid out the sizes using a home made "beam" compass and an adjustable angle. Plans called for a 40 degree angle but 45 would probably work alright. Two sides can be cut from one sink cut-out, and although particle board is not as smooth as MDF, the formica gives a beautifully finished surface once the pieces are glued together.

IMPORTANT! Lay out from the center of each circle the lines for the center of each slot. Start at the top of the outside circle and use the radius of the circle to layout 6 points around the circumference of the circle. Draw a line from the center of the circle to each point. The 1st, 3rd and 5th point on the circumference will be the center of your slots. Transfer these lines to the formica side of ONE piece. The other piece has no slots.

Watch out, the formica will ruin a brand new blade on your bandsaw. You could use a good jig saw instead, those blades are cheaper! Cut the entrance slot into the interior circle (bandsaw only) in the same position on each piece. When you glue the particle board surfaces together the entrance cuts will be on opposite sides.

The plans are on the internet courtesy of American Woodworker and are free by clicking on:

http://www.americanwoodworker.com/200012/workshop_tips/bluemain.html



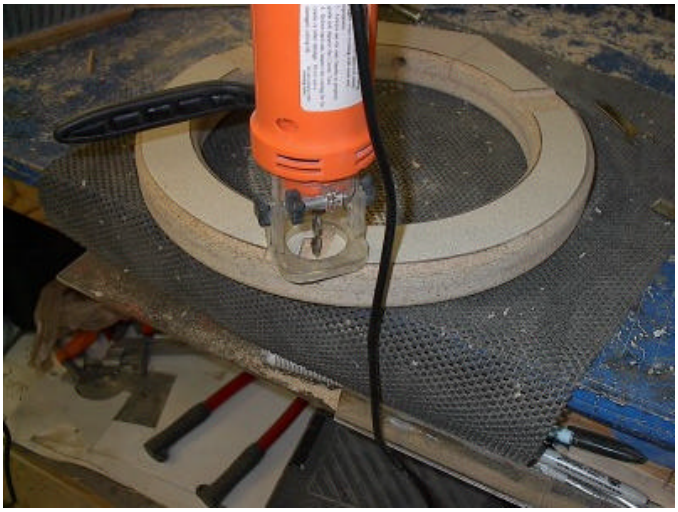
Before starting to glue up the 2 pieces, try sanding to the lines to make them matching pairs as close as possible. Once the interior and exterior are pre-sanded, glue them together to dry over night. Remove the clamps and do the finish sanding on the exterior and interior. Once sanded, use a round-over bit in your router and clean up all the edges, but NOT the bottom edge that sits on the lathe

Sand the exterior edges until they are smooth and look like one piece of material 1½ “thick. I know, it looks like the edges were routed before I sanded them. The photo is out of sequence because I didn’t decide to make this “Show & Tell” until I had gotten this far.

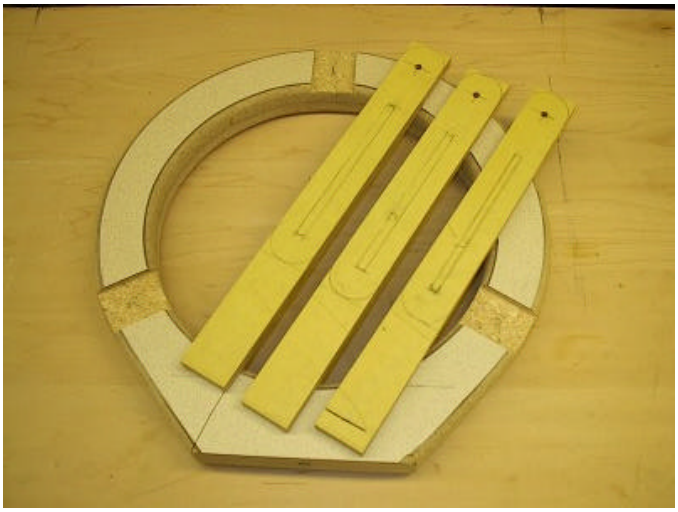
Sand the interior edges smooth, until they are “pretty”.

Mark out the slots for the roller arms using a marking gauge, darken the gauge lines with a pencil. The roller arms are ½” MDO (medium density over-lay) material used by the venerable “Norm” in many of his projects. It’s used almost exclusively by the sign industry. Any sign supply house can sell you a sheet. (Can you guess what I did in a former life?)

Clamp a short piece of hardwood to the layout line on one side of the slot. Use it as a guide to make the kerf straight and use a hacksaw to cut just below your depth mark. Repeat this 5 times and you'll have nice straight sides for the slots.



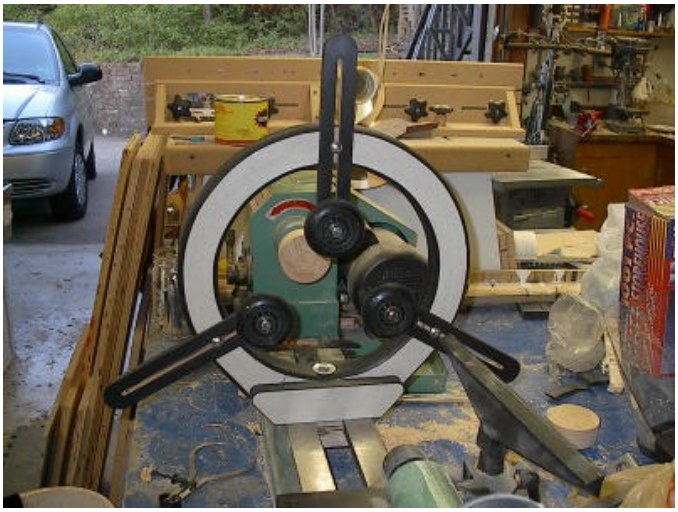
I cut out the slots with a cut-out router Roto-Zip or similar (Harbor Freight $19.95) ¼" deep but any router would work as long as you have a see through base. Be careful not to touch the nice straight kerfs you took so much time to produce. Clean up the slots with a sharp chisel.



Lay out the roller arms, the plans called for 1¼" but I made mine 1½". Mark the slots for the ¼" adjustment bolts and the hole for the roller bolt. Mark out the radius for each end using anything round and 1½" in diameter.

Rout the slots in the roller arms using a ¼" router bit. Set the depth of the cut to be just a "smidge" more than half way. Then turn the arm over and rout through the other side. Drill the ¼" hole for the roller bolt.

Round and smooth the ends of each roller arm and the side of each roller arm to fit the slots you cut in the main body of the steady rest. Since each slot will be slightly different in width, mark each arm and their respective slots and sand the edges to fit.



If you're old enough to remember two-toned automobiles and the Hudson in particular, then you have the perfect compliment for your lathe, a two-toned Steady Rest. Make certain you wipe off the paint that gets on the Formica before it dries too much.

A Woodfast Center Steady in plain green paint $150. A Woodfast Deluxe steady rest in a nice green enamel coat - $250

Doing it yourself with scraps and wheels from those inline skates that you'll never use again and one $3 sink cut-out with a few nuts and bolts - Priceless!