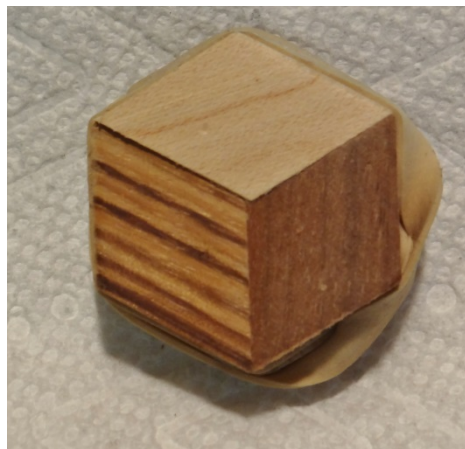




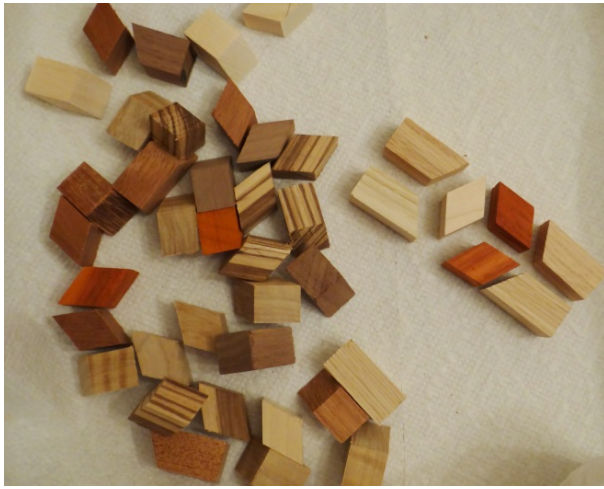
TO CREATE A

BOX ORNAMENT

To create an ornament of the box you have start with what size does the box need to be to fit on a block of wood that is $1\frac{3}{4} \times 1\frac{3}{4} \times 4$ inch long. With that in your mind you go to set up your saw to cut the perfect diamonds from the selected wood you chose. You test your fit by cutting 3 diamonds and if they fit together exactly tight you can start cutting your multi diamonds to make the boxes. Then also cut adjoining pieces to make a rectangle, then add side pieces to form a segment that will fit on the base block that is $1\frac{3}{4} \times 1\frac{3}{4} \times 4$ inches.



Three different triangles tested to fit exactly; all the corners fit tightly, at this point you can mass cut your diamonds for making the boxes.



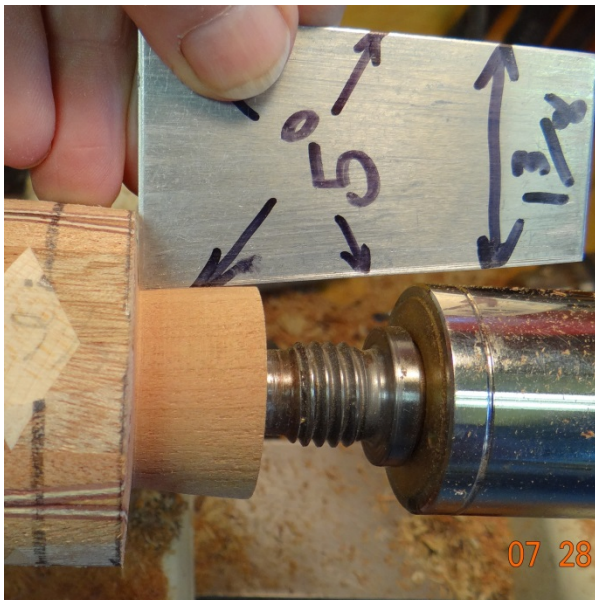
You attach these box segments to the blocks, after slicing them in half and adding a piece of veneer to the bottom of the segment which becomes a picture frame after turning to a globe..



To hold the box designs evenly and square I used a couple of 1/8 inch dowel pins to hold the box signs in place, when applying glue to four sides. Things get a little slippery and hard to apply clamps, the dowel pins keep everything in line and centered.



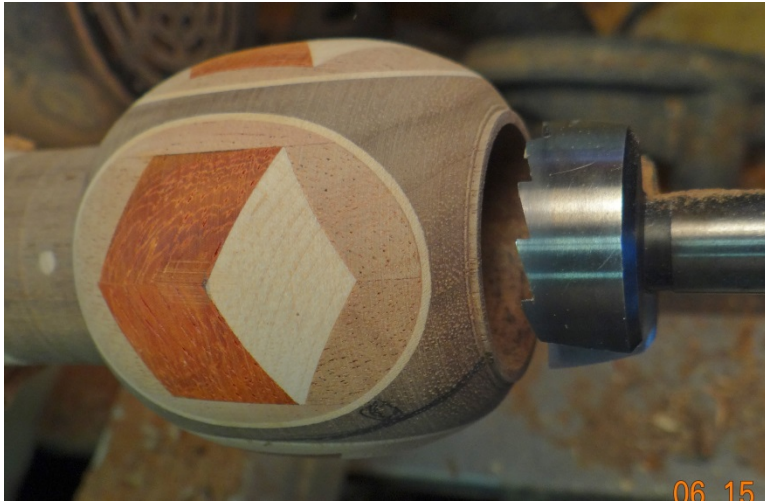
Chuck up the blank and turn it round, then at the right end we cut a plug that is $1\frac{3}{8}$ inch in diameter, I made myself a cut out that is $1\frac{3}{8}$ " , this was easier to measuring than with calibers.



Since this is a plug we have a 5 degree taper to the plug, I drew a pattern in card board to test the 5 degree taper. The card board wasn't going to hold up in use so I made a aluminum pattern of a 5 degree taper.



Before you cut off the plug section mark the plug and the globe as shown, this will help you



I hollow out the globe by cheating a bit I drill out 90 % of the wood instead of using a hollowing tool and going in to a small hole. You can get into the globe a lot easier this why to hollow. Then size the opening to match the plug with its 5% taper using a aluminum pattern to insert into the hole. The lip that is left on the globe is there to indicate the size of the plug, that was cut free and not to go wider than the lip.



Make yourself a square scraper as show and grind off the front bottom of the scraper to keep it from digging in and grind off the side to keep from cutting the sides of the hole larger than needed. The purpose of the scraper is to aid in cutting a 5 degree taper to match the plug.

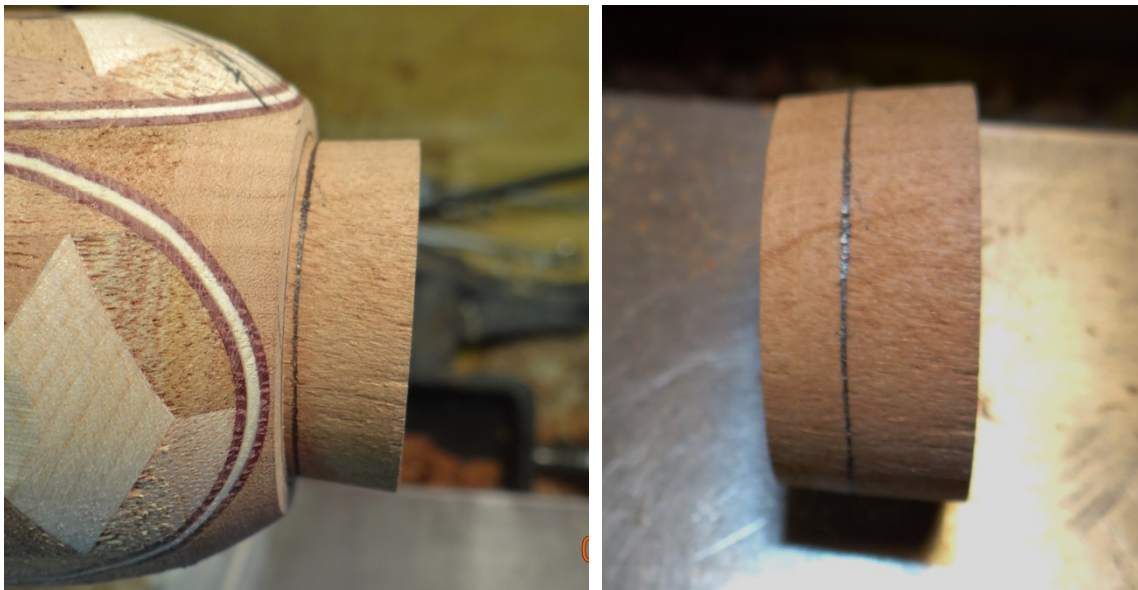
Hollow the globe and cut a 5 degree taper on the opening to match the plug.



This is how much hollowing can be done in a hurry. And you can see how much more to hollow. By using a special square scraper as shown you can cut and size the plug hole without enlarging the width of the plug hole. Just stay within the lip that was left as a guide.



With the aluminum pattern use the opposite end to fit inside to test the 5 degree taper.



Test the fit of the plug and draw a line around to see the depth of the plug that was inserted.



Once you cut the matching taper of the plug, you can use thick super glue to glue in the plug. Here you see the indicator line that was used to align the plug to the grain of the base wood.



Before you turn the end of the globe and the plug, drill a $\frac{1}{4}$ inch hole all the way through the globe. I found that after you shaped the globe sanded and applied the finish, where the globe attached to the chuck and where you cut the globe off. The globe usually had a lip left on the end and the finish needed to be improved.



After sanding and applying a finish to the globe, you cut off from the main block. I found that it left a lip and the finish wasn't what I wanted. So I came up with a gig using an earlier globe block and inserting a $\frac{1}{4}$ " dowel gave me what I needed to slide the globe on to remove the lip and apply the finish.

The gig with a ¼ inch dowel so as to be able to slip the globe on and finish by removing the lip and apply Finish.



This gig was made from an earlier globe block added a ¼ inch dowel just short of the globes body length. If the globe is a bit loose insert a piece paper towel to the ¼ inch dowel.



The end results of a box ornament.2017



A bowl of box ornaments or Globes!