

GAVELS

This is a project the kids of all ages love to do. Sherry and I have used this project with kids as young as 8 and I've done it with junior high and high school students. Like many other projects it can be done at all skill levels. Our students have reported using their gavels at mock courts in school, even as crab mallets, and as gifts. One student turned a strike to make a special gift for his grandfather.

With younger students ages 10-12 we use one 2.5 hour class to turn the head and a second 2.5 hour class to turn the handle. Older students in a five day class can turn the head and handle in about 3 hours on the 3rd day after mastering the basics.



Student gavels



more student gavels



Sample Gavels



gavel parts for ideas

Gavel Head

Blank size

2"x2"x3" hardwood such as maple, cherry, walnut, locust,

Tools:

Face Shield

Disposable dust mask

Spindle roughing gouge

Parting tool

1/4 or 3/8 spindle gouge

1/2 drill bit, drill press, vee board, masking tape or hand drill

Ruler

Sandpaper, walnut oil

backsaw

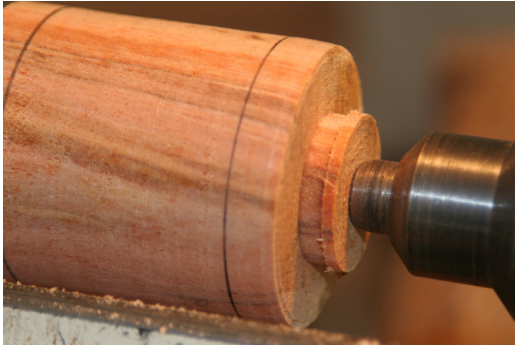
Design considerations: Most important is a rounded edge leading to striking face otherwise the head will split or chip. Symmetric design generally look the better than asymmetric ones.

Class format:

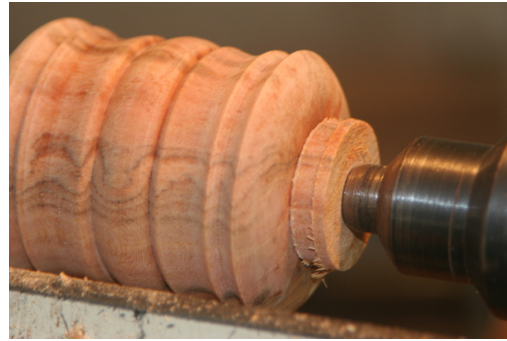
We begin each class with a review of the safety rules. We then spend about 40 minutes with a warm up block. In this case a 2x2x3 poplar or soft maple that the students practice beads and coves and parting. The project and the warm-up/practice exercises are taught by showing a step then have the students do it. Each time reviewing how the tool is used. Below I'll use **** where I would break from the demo.

Turning

1. Mount between centers.
2. Rough to a cylinder with spindle roughing gouge
3. Part in at each end to a 1" diameter to mark off the head. Leaving a 1" tenon on both ends to hold the work. ****
4. Lay out the design The students can design their own using combinations of beads, coves, and flats. I show a simple design with a bead on each end and a large bead between. I extend the bead on each end over the striking face to the 1" tenon.

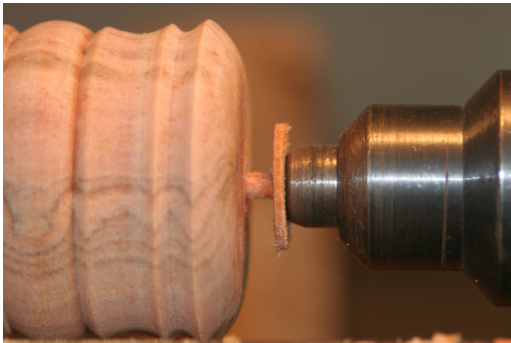


Layout



Rounded striking face

5. Sand the surfaces with 120 and 220 *****
6. Part in on the tailstock face and then on the headstock face. Students need to makes this slightly convex Student should part in to slightly less than a pencil diameter. More able student can take this part into 1/8 inch.



1/8" tenon



vee block assist the drilling

7. Remove from the lathe and saw off the tenon from each end. I have the students use a small backsaw for this. I usually hold the head and keep my body parts away from the saw. Most young turners have a great difficulty sawing. I stress not pushing down on the saw and letting the weight of the saw be enough to feed it into the work. *****
8. Sand the sawn surface. I will have a 3" 120 grit disc on a drill. Followed by a piece of 220 on a table. The students run the face back and forth over the paper. Using the 3" disk often requires two people: an instructor or other student to hold the drill and a student holding their gavel head against the disc.
9. Students then select and mark the mortis hole to receive the handle. I tell them the handle has to go in one of the circles. You can say face grain but why? I also suggest they decide which circles look the prettiest as this will be what folks see when the gavel is laying on the table so put the hole on the other side.
10. We had a drill press at MD Hall. I mounted a vee board to position the gavel head. Put a piece of tape on the drill bit to mark the mortise hole 3/4" deep.
11. I hold the gavel head and the students turn on the drill press and feed the drill into the wood. I have them practice turning the machine on/off and explain to them to back the drill bit out when I said "up".

Gavel Handle

Blank size

1"x1"x10" hardwood matching the head such as maple, cherry, walnut, locust,

Tools:

Face Shield
Disposable dust mask
Spindle roughing gouge
Parting tool
¼ or 3/8 spindle gouge
Ruler
Sandpaper and n walnut oil

Design considerations: We tell the students that a bead where the handle joins the head will hide the joint in a shadow. Also there is a length that looks good with each head. We would have 5 or 6 handles for the students to use for deciding on a length of then handles for their gavel head.. When turning the handle we talk about making it something than feels good in their hand.

Class format:

We begin each class with a review of the safety rules. We then spend about 40 minutes with a warm up block. In this case a 2x2x3 poplar or soft maple that the students practice beads and coves and parting. The project and the warm-up/practice exercises are taught by showing a step then have the students do it. Each time reviewing how the tool is used. Below I'll use **** where I would break from the demo.

Turning

1. Mount between centers
2. Rough to a cylinder using the spindle roughing gouge. ****
3. The tenon can be turned on either end. It is best if one of the centers is small enough to allow turning the tenon on one end. The Maryland hall lathes had a small cone center and we could have the students turn down to ½" and test fit. The tenon can be turned on the headstock side if you have a small cup or step center to drive the work.
4. Making the tenon begins with marking a ¾ inch length (don't expect a 12 year old to know how to measure ¾ of an inch) set the calipers on a ½ drill bit. Part in on the very end stop the lathe and test with the calipers. Then part in the length of the tenon just a bit larger in diameter. Test fit using either the head itself or a wood strip with ½" diameter hole. Keep working with the parting tool until the oak strip just slides the full length. If the tenon is too small in diameter they can work back in ¼ inch lengths. The oak strip can still be used for the test fit.

5. Make a part in an 1/8th inch to mark the length of the handle. Then turn the handle and part in to less than the thickness of a pencil. Here we let some students cut the handle free with the spindle gouge with an instructor holding the handle until it is free. Alternative the waste could be sawn off.
6. The student then test fit the handle into the head. When the whole class can hold their handles and not have the heads fall off we tip our hats to the class and tell them what fine tenons they have.
7. If a tenon is loose I put a turn of making tape being sure to leave bare wood on either side of the tape and test fit
8. We then glue the heads on with Tite-bond or something similar. The student the finish with walnut oil. I instruct them to be careful not to turn the handle when wiping off the excess oil and not to turn it by accident for overnight.



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