

an illustrated tutorial

Making a Peppermill



written and illustrated by
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Making a Peppermill

**Remember: Tools can be dangerous
Wear face protection and
handle all tools with care!!**



Start with a “Blank”----10/4 is good



This will be an 8” mill, so I cut the blank at 6.5” and the top about 2.5”. Mark the pieces so you don’t forget where the pattern will match up.

Next, mark the ends with an “X”, indicating the center. This is done on all four surfaces (body and top)



Now, mount the body between centers, making certain to hit the center of the “X” with the point of the drive center and live center in the tailstock.



Turned round

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Tenon



Turn top to round, making certain to turn a tenon that will fit inside your hole (this mechanism requires a 1&1/16" hole). I have made this jig to assist in getting a tenon that will fit accurately.



Mount the body in a scroll chuck, with the #2 jaws. Insert a 1&1/16" forstner bit into the Jacobs chuck and run the lathe about 500 RPM. Slowly push the drill bit into the body, retracting frequently to remove shavings. If bit gets very hot, stop for a while. Heat is NOT good, but does happen.

When finished drilling, you will have the body, and the top, with the tenon, as shown.



You can now switch the jaws in your scroll chuck to either #1 or pin jaws, if you have them (I don't).

When you mount the body on the lathe, the #1 jaws will fit into the hole, with outward pressure applied by the

chuck jaws. Using outward pressure, the rotation of the lathe will "loosen" the jaws in the event of a "catch". For this reason, I do not suggest aggressive removal of material. Take many passes, removing a little at a time--it is SAFER!!!



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The top picture shows the body mounted and my 12” tool rest positioned to turn to shape. Again we are driving with the chuck jaws expanded in the hole. A “catch” will loosen the jaws and allow the body to fly off the lathe---BE CAREFUL!!!

The lower left picture is the

top of the mill being held by it’s tenon. The picture on the right shows the final shape, although it has not been sanded or tested for fit. The bottom of this should match the diameter of the “outside” of the body. So, some fitting is necessary before it is complete.

**AW,
SH.....ucks!!**

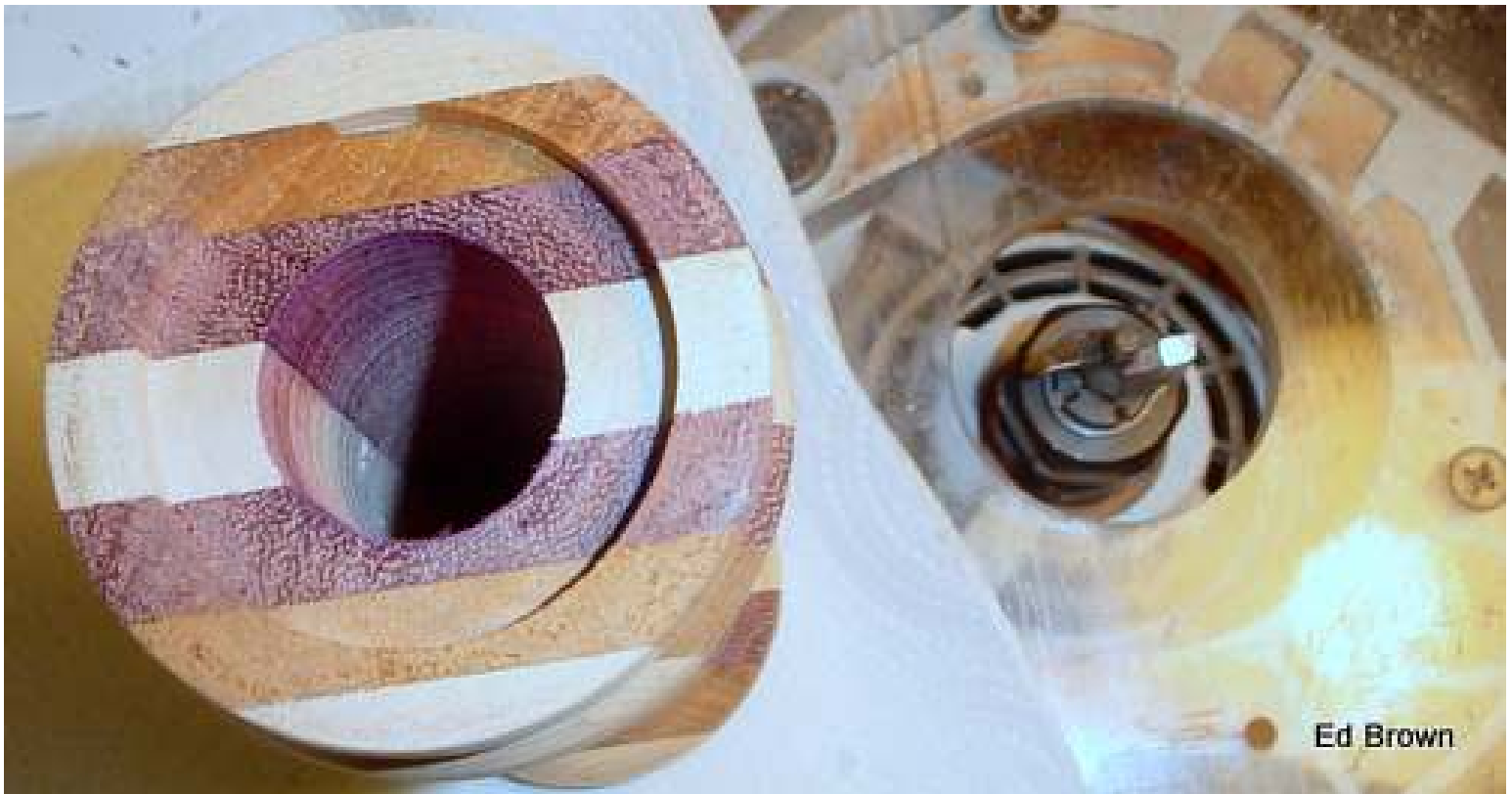
After test fitting, the top needed just a minor “easing” or “rounding” of its edge to fit “just right”!!

While making this change, a “redesign opportunity” struck. Never stop PAYING ATTENTION to what you are doing!!



**Completely
Turned**

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To make the indent for the “hardware” in the bottom, I use a router with a 1/4” dado bit, mounted in my router table. The table has a clear acrylic top so the picture is misleading. I use an old “paddle-type” bit. The newer dado bits are too big to fit in the hole and cut the dado safely.



ALTERNATIVELY!!!

You can make this “indent” when you drill the body!! Simply start by drilling from the bottom end, a hole that is at least 1 & 9/16” (half an inch larger than the “through hole”). Drill this about 3/8” deep. This operation will leave you with the center marked by the first bit, so you can drill accurately for the “through hole”, using this same center.



Ready to finish!!

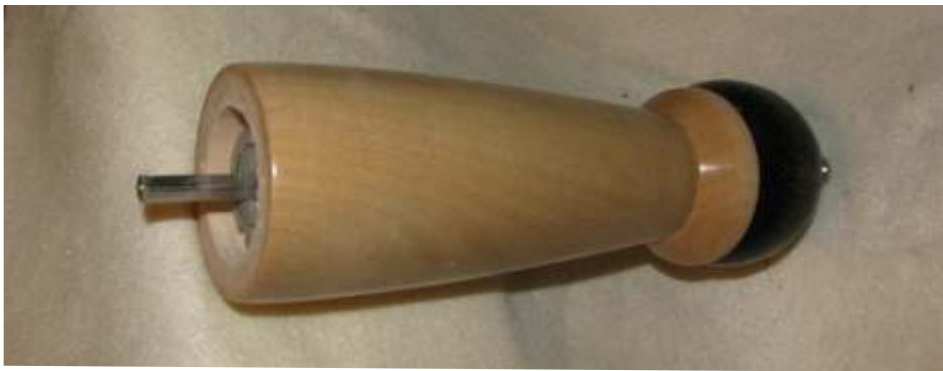
Yes, it is Beautiful!! BUT it is also a “kitchen” helper.

When you choose a finish, remember it will probably be “wiped off” with hot, soapy dishwater. There are many possible finishes, some spray on, some wipe on. Choose your favorite and let it “dry” before assembling and inserting the mechanism.

The Peppermill Mechanism installation

First- complete your peppermill body, as shown here. Any size is fine.

As the tutorial said, the “through hole” should be 1.0625” (1&1/16)

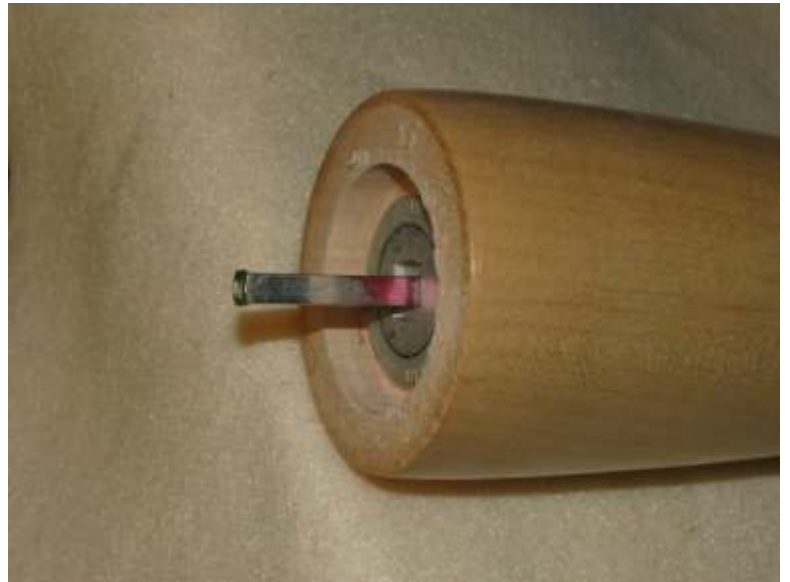


Now, screw on the threaded knob, until it is tight. Holding everything tightly together as shown above, the shaft will stick out of the bottom. Mark the shaft (a pencil line is fine, but does not photograph like the red marker did) where the grinding mechanism is “seated”.

Mechanism made in USA--Purchased from:

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The shaft
is marked,
ready to
cut



Insert in
vise



Use
hacksaw to
cut to the
length you
have marked

Holding the shaft upright in your vise, tap repeatedly with a hammer, off center to bend the aluminum over the edges



Hard to see, but the end is bent over so it will catch the male part of the grinder mechanism

See??

It doesn't slip off!!





Knob

Plate attach to
bottom of tenon

Shaft

Spring retainer

Spring

Grinder (female)

Shaft

Grinder (male)

Retaining bar

Proper order of assembling parts

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Screw in
the
crossbar

It

is

finished!!



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